| POS!TION                  | INITIALS | ID NO. | DATE       |
|---------------------------|----------|--------|------------|
| FEE DETERMINATION         |          |        |            |
| O.I.P.E. CLASSIFIER       |          | 1/2    | 1/12/2     |
| FORMALITY REVIEW          | al a     | 809    | 113/12     |
| RESPONSE FORMALITY REVIEW | T2       | 2c947  | 02   39/0/ |

## **INDEX OF CLAIMS**

| ✓ Rejected                                     | N Non-elected |
|--|---------------|
| = Allowed                                      | IInterference |
| <ul> <li>(Through numeral) Canceled</li> </ul> | A Appeal      |
| ÷ Restricted                                   | O Ohiected    |

|               |                    |                     |                |              |          |          |               |                |                | ••••          |           |          |                   |           |            |              | U        | •••••    | •••••    | ••••     |
|---------------|--------------------|---------------------|----------------|--------------|----------|----------|---------------|----------------|----------------|---------------|-----------|----------|-------------------|-----------|------------|--------------|----------|----------|----------|----------|
| Claim         | T                  |                     | _              | Da           | ite      |          |               |                | 7              | Cla           | im        | Γ        |                   |           |            | Date         | _        |          |          |          |
|               | 77                 | 3                   | Т              | Т            | T        |          | $\neg$        | $\neg$         | -              |               | _         | 15       | ١.                |           |            |              |          | ${T}$    | $\neg$   | ~        |
| Final         | 17                 |                     | 1              |              | 1.       |          | ı             |                |                | _             | Original  | 3112     | 8                 |           | - 1        | -            | -        |          | - 1      | - [      |
| Final         | 104                | ۳۷                  |                |              | l i      |          | - [           | - 1            | 1.             | Final         | ij        | 20       | 1,0               |           | 1          | - 1          | - 1      |          | - 1      | - 1      |
| 1             | 1                  | 1                   | +              | ╁            | ╢        | -+       | -+            | $\dashv$       | -              | -             | 51        | 8        |                   |           |            | +            | -4       | _        | 4        | 4        |
| 1 2           | י ע                | 0                   | +-             | ╀            | H        | $\dashv$ | -+            | -              |                |               |           | •        | 1                 | 4         | _          | _[.          | _        | 4        | _        |          |
| 3             |                    | <del>}</del>        | -              | +-           | $\vdash$ | 4        | 4             | _              | -              |               | <u>53</u> |          | -11               | $\Box$    |            | $\perp$      | _1       | $\perp$  | 丄        |          |
| <del></del>   |                    |                     | _              | Ļ            | Ш        |          |               | ⊥              | _              |               | 58        |          | Ш                 | _         | -          | - 1          | - 1      |          | $\neg$   | T        |
| 4             | 0                  | 7                   | 丰              | $oxed{oxed}$ | Ш        |          | $\perp$       | $\perp$        |                |               | 54        |          | П                 | П         |            | T            | 7        | 7        | 7        | 寸        |
| 5             |                    | $\vdash$            |                | L            | Ш        |          |               |                |                |               | 55        |          | $\Pi$             | T         | П          | Т            |          | $\neg$   | 丁        | T        |
| 6             | Ш                  |                     |                | 1            | Ll       | - 1      |               |                | 7 [            | Π:            | 56        |          | П                 | $\exists$ |            | _            | 1        | $\neg$   | 7        | 十        |
| 7             |                    | 0_                  |                | Γ            | ПП       |          | $\neg \Gamma$ | T              | 7 /            | 1             | 57        | T        | $\sqcap$          | _†        | $\dashv$   | $\top$       | 7        | 十        | $\dashv$ | 7        |
| 1/8           |                    | 37                  | T              | Г            | П        |          |               | 1              | 7 I            | - (           | 58        |          | H                 | _         | +          | $\top$       | +        | +        | 十        | ╁        |
| 9             |                    | 0                   | T              |              |          | $\top$   | 十             | _              | 7 h            |               | 59        | $\dashv$ | Ħ                 | +         |            | +            | ╅        | +        | ╅        | +        |
| 10            | 7 (                | 7                   | 1              |              | П        | 1        | $\top$        | +              | 7 h            | _             | 50        | -†       | H                 | $\dashv$  | +          | ╁            | +        | +        | ╅        | ┽        |
| 11            | 0                  | )                   | 十              | $\vdash$     | $\vdash$ | +        | _             |                | <b>⊣</b> ⊦     |               | 61        | ╛        | ₩                 | +         | ┰          | +            | +        | +        | +        | +        |
| 12            | <b>7</b>           | ᅱ                   | ✝              | $\vdash$     | $\vdash$ | _        | ╁             | ╫              | -  F           |               | 5         | +        | ╫                 | +         |            | - -          | +        | +        | +        | 4        |
| 13            |                    | <del>-  -</del>     | +              |              | $\dashv$ | +        | +             | +              | -   -          | -12           | 53        | +        | ₩                 | -+        | 4.         | +            | +        | -        | +        | 4        |
| 14            |                    |                     | +              | $\vdash$     | $\dashv$ | +        | +             | +              | -  }-          | $\rightarrow$ | -+        |          | #                 | +         | -          | 4-           | +        | 4        | 4        | $\perp$  |
| 15            | _                  | <del>,</del>        | ╁              | Н            | ᆛ        | +        | +             | +              | -  }-          | 10            | 4         |          | #                 | +         | -          | 4            | 4        | 4        | 4        | 4        |
| 140           | -                  | $\vdash$            | 1              | ├╌┤          | -+       | - -      | +             | +              | -   -          | -16           | 3         | -        | #                 | $\bot$    | _ _        | _ļ_          | 1        |          | 1        | $\perp$  |
| 17<br>18      |                    | ₩-                  | $\vdash$       |              | 4        | +        | +             | +              | -   -          |               | <u></u>   | 4        | $\mu$             | 4         | $\perp$    | ┸            | $\perp$  | $\perp$  | ⊥        | ┸        |
| 2 10          | -                  | #                   | $\vdash$       | $\dashv$     | 4        | +        | 4             | <b>↓</b> _     | <b>↓</b> ↓     | 6             |           | 4        | Ц                 |           | ⅃_         | ┸            | _        |          | L        |          |
| 18            | ₩                  | Н_                  | Н              |              | _        | _ _      | 4             | ┶              | J L            | 6             | 8         |          | Ш                 | $\perp$   |            | _            | ┚        | $\perp$  |          | Т        |
| 2 19          | 11                 | Щ                   | Ш              | _            |          | _ _      | 丄             | L              | JL             | 6             | 9         |          |                   | -         | 1          |              | Т        | Т        | Т        | T        |
| 20            | $\coprod I$        | 1                   |                |              | - [      |          |               | 1              | 1 1            | R             | 9         | 1        | П                 | Т         | Т          | Т            | Т        | T        | T        | $\top$   |
| 21            | Ш                  |                     | П              |              |          | T        | $\top$        |                | 1              | 7             |           | +        | Ħ                 | $\top$    | ┰          | ╈            | t        | +        |          | +        |
| 22            | 1 17               | T                   |                | T            | $\neg$   |          | ┱             | 1              | 1              | ¥Z            | 2         | $\top$   | Ħ                 | $\top$    | +          | +            | ╈        | +        | +-       | 十        |
| 23            | Ш                  |                     | П              | $\neg$       |          | $\top$   | 1             | 1              | 1              | Ì             |           | 7        | ††                | +         | +          | +            | ╁        |          | +        | 十        |
| 24            | Ш                  | T                   | П              |              | 7        | $\top$   | T             | $\top$         | 1 1            | 7.            | _         | 十        | H                 | ╅         | +-         | +            | ╁        | +        | ╁        | +        |
| 25            | П                  | T                   | П              | T            | 7        | 丁        | T             | 1              | 1              | 7             | 5         |          | $^{\prime\prime}$ | +         | +-         | +-           | +        | +        | +-       | +        |
| 26            | Ш                  | 1                   |                | $\neg$       | $\neg$   | _        | ✝             | 十              | 1              | 76            |           | ١.       |                   | +         | +          | ╁            | +-       | +        | +        | +-       |
| 27            | $\Pi^{\dagger}$    |                     | $\Box$         | $\dashv$     | 1        | $\top$   | ╁             | +              | -              | 7             |           | +        | +                 | ╁         | +-         | +            | ╁        | ╁        | ╁        | ╀        |
| 28            | H                  | 1                   |                | _            | _        | 十        | ╈             | 1-             | 1 1-           | 78            | _         | ╁        | ╁                 | +         | +-         | ┼-           | +        | +        | ╁        | +-       |
| 29            | $\Pi$              | $\top$              | $\exists$      | $\dashv$     | _        | ╁        | +-            | ╁              | ┤├             | 79            | _         | ╁        | +-                | ╫         | +          | ╁            | ╀        | ╁        | ╁        | ╁╴       |
| 30            | 111                | +                   |                | ╅            | +        | 十        | ╁             | ┼-             | 1 H            | 80            | -         | ╁        | +                 | ┿         | +          | ╀            | ╂        | +-       | ╀        | ╀        |
| 31            | $H_{I}$            | 1-1                 | -              |              | +-       | ╁        | +             | ╁              | ┨              | 81            | -         |          | +                 | ╁         | +          | ┼-           | ╄        | +        | +        | +        |
| 32            | H+                 | ╁                   | -+             | +            | - -      | ╅─       | ┾╌            | ⊢              | <b>∤</b>       |               | _         | +        | +-                | +         | ╀          | <del> </del> | ╄        | ╁        | 丰        | ↓_       |
| 33            | ┞┼┼                | ╁                   | +              | +            | - -      | ╂╌       | ╁             | ⊢              |                | 82            | -         | +        | ╀                 | +         | ╁          | ┺            | ╙        | 4_       | ╄        | ╙        |
| 34            | ╫                  | $\vdash$            | $\dashv$       | +            |          | +        | ╀             | <del> </del> — | l              | 83            | -         | -        | +                 | ╄-        | 上          | <u> </u>     | ┞_       | <u> </u> | ╄        | <u> </u> |
| 35            |                    | ┨                   | $\dashv$       | +            | +        | +-       | ╀             | Ŀ              | -              | 84            | -         | ┸        | $\perp$           | ļ_        | ↓_         | <u> </u>     | _        | ↓_       | ┺        | L        |
| 36            | <del>     </del> - | ↤                   | -              | +            | +        | ╀        | <del> </del>  | <u> </u>       | l ⊢            | 85            | _         | ╀        | ╀                 | 1_        | 上          | $oxed{oxed}$ | <u> </u> | ↓_       | ┖        | L        |
| 37            | +                  | ╁┼                  | -              | +            | +        | ╄        | ╀             |                | <del> </del> - | 86            | _         | 1        | ╀-                | $\perp$   | <u> </u>   | L            | L        | L        | L        | L        |
| $\rightarrow$ | 10                 | $\vdash$            | +              | +            | +        | ↓_       | L             | <u> </u>       | ⊢⊢             | 87            | <u> </u>  | 1.       | ┺                 | L         | <u>L</u> . | <u> </u>     |          |          | L        |          |
| (39)/         |                    | $\vdash \downarrow$ | 4              | +            | 4        | ↓_       | <b>—</b>      | Ш              | '              | 88            | 1         | L        | ┖                 | _         | L          | L.           | L        | $\perp$  | Ĺ        | Ĺ        |
|               | 110                |                     | 4              | - -          | +        | <u> </u> | Щ             | L              | oxdot          | 89            | $\perp$   | 1        | <u> </u>          |           | L          | _            |          | L        | L        |          |
| 40            | 44                 | $\sqcup$            |                |              | ┸        |          | Ш             |                | L              | 90            | L         |          | 1                 | L         |            |              |          |          |          | Γ        |
|               | II                 | Ш                   | $\perp$        | ╝            |          | $L^{T}$  | [ 7           |                |                | 91            | Γ         | Γ        |                   | Г         |            |              | _        | Г        |          | Г        |
| , 42          | $\prod$            |                     | $oxed{\Gamma}$ | J            | Ι        | П        |               |                |                | 92            | Г         | Τ        | T                 | $\vdash$  | П          | $\vdash$     | _        | $\vdash$ | $\vdash$ |          |
| 43            |                    |                     |                | T            | T        | П        | $\Box$        |                |                | 93            |           | Τ        | 1-                | T         |            |              | -        |          | $\vdash$ | H        |
| 44            | Ш                  | T                   | $\top$         | T            | Т        | П        | $\neg$        | $\dashv$       |                | 94            | _         |          | 1                 | $\vdash$  | H          | -            | _        | $\vdash$ | $\vdash$ | $\vdash$ |
| 45            | $\prod$            |                     | 1              | 7            | $\top$   |          | 7             | ᅥ              | <u> </u>       | 95            | ┢         | -        | 1                 |           | $\vdash$   | ᅱ            | _        | $\vdash$ | $\dashv$ | $\dashv$ |
| 46            | Ш                  | $\top$              | 7              | 1            | 1        | П        | 7             | ᅥ              |                | 96            |           | $\vdash$ | 1                 |           | $\dashv$   | $\dashv$     | -        | $\vdash$ | $\dashv$ | $\dashv$ |
| 47            |                    | +                   | $\top$         | T            | $\top$   | Н        | -+            | $\dashv$       | 一              | 97            | -         | $\vdash$ | <del> </del>      | <u> </u>  | $\dashv$   |              | -        | Н        | -        | $\dashv$ |
| 48 /-         | 11                 | $\dashv$            | $\top$         | $\top$       | ╁        | $\vdash$ | +             | $\dashv$       | -              | 98            |           | ┢        | <del>  -</del>    | Н         | $\dashv$   | -            | -        | $\vdash$ | $\dashv$ |          |
| (49) N        | 7                  | $\top$              | $\top$         | $\top$       | 1        | $\vdash$ | +             | $\dashv$       |                | 99            | _         | Η-       | 1                 | $\vdash$  | -+         | -+           | $\dashv$ | ┌╌┤      | $\dashv$ |          |
| 50 0          |                    | $\top$              | $\top$         | $\top$       | 1        | $\vdash$ | +             | $\dashv$       |                | 100           |           | _        | $\vdash$          | $\vdash$  | -          | $\dashv$     | -        | $\dashv$ | +        | $\dashv$ |
| _             |                    | _                   |                | -            | •        |          |               | _              |                |               |           |          | ш                 |           |            |              |          |          |          |          |

| Claim             |              | _         | -            |   |   | _  | _            | _       | _            |   |           | _          |              |
|-------------------|--------------|-----------|--------------|---|---|----|--------------|---------|--------------|---|-----------|------------|--------------|
|                   | _            | т-        | Т            | - | _ | 7  | Da           | te      | _            | _ | 1         |            | _            |
| Finat<br>Original |              |           |              |   | ľ | ١  |              | ļ       | 1            |   | l         | ı          |              |
| Final             |              | 1         | l            |   |   |    |              |         | 1            |   | 1         | 1          | -            |
| 101               |              | -         | ┝            | 4 |   | +  | _            | ┝       | +            | _ | ⊢         | ╀          | +            |
| 102               | _            | $\vdash$  | ╁╌           | ┪ |   | +  | _            | ┝       | +            |   | ⊢         | +          | +            |
| 103               |              | -         | H            | ┪ | _ | +  | -            | ┝       | +            | _ | ┝         | ╀          | ╌            |
| 104               |              |           | ┞            | ┨ | _ | +  | -            | ┝       | +            | - | H         | ╀          | +            |
| 105               |              |           | ┢            | 1 |   | t  |              | -       | +            |   | $\vdash$  | ╁          | ╁            |
| 106               |              |           | T            | T | _ | t  |              | Н       | ╁            | _ | <u> </u>  | ╁          | ╁            |
| 107               |              |           | Г            | 7 |   | t  |              | _       | $^{\dagger}$ | T | _         | ╁          | +            |
| 108               | $\Box$       |           | Г            | 1 |   | T  |              |         | T            | 7 | -         | T          | $\top$       |
| 109               |              |           |              | 1 |   | T  |              | _       | T            |   |           | 1          | T            |
| 110               |              |           |              | Ī |   |    |              |         | Γ            |   |           | Т          | 1            |
| 111               | $\Box$       |           |              | 1 |   | L  |              |         |              |   |           | Π          |              |
| 112               |              | _         |              | 1 |   | L  |              |         |              |   |           |            | L            |
| 113               | _            |           | _            | 1 |   | L  | $\downarrow$ |         |              |   |           | L          | L            |
| 114               | 4            | _         | _            | 4 | _ | L  | 4            |         | L            | 4 |           | L          | <u> </u>     |
| 115               | 4            |           |              | 1 | _ | L  | 4            |         | L            | 4 |           | L          | ↓_           |
| 116<br>117        | $\dashv$     | 4         |              | 1 |   | L  | 4            |         | L            | 4 |           | L          | ╄            |
| 118               | $\dashv$     | $\dashv$  |              | + | _ | L  | +            | _       | L            | + | _         | <u> </u> _ | ╄            |
| 119               | +            | 4         | _            | ╀ | _ | L  | +            | _       | ⊢            | + | _         | L          | 1            |
| 120               | +            | $\dashv$  |              | ╀ | - | ļ. | +            | _       | H            | 1 | _         | L          | ╀            |
| 121               | +            | -         |              | ╀ | 4 |    | +            | _       | L            | + |           |            | -            |
| 122               | +            | $\dashv$  | _            | H | - |    | +            | _       | ┡            | + | -         |            | ⊬            |
| 123               | +            | +         |              | H | ┥ | -  | +            |         | _            | + | $\dashv$  | _          | ⊬            |
| 124               | ╁            | +         | _            | H | ┪ | _  | +            | _       |              | Ŧ | ┥         |            | -            |
| 125               | †            | 7         | _            | t | + |    | +            |         | _            | t | 7         | _          | ├─           |
| 126               | †            | +         | _            | H | 7 | _  | t            | ┪       | _            | t | -         | _          | <del> </del> |
| 127               | Ť            | 7         |              | Г | 7 | _  | Ť            | 7       |              | t | $\forall$ |            | H            |
| 128               | T            | $\top$    |              | Г | 1 |    | T            |         |              | T | T         |            |              |
| 129               | Ι            |           |              |   |   |    | 1            |         |              | Τ | 7         |            |              |
| 130               |              | 1         |              |   |   |    | Ι            | I       |              | Ι | T         |            |              |
| 131               | 1            | $\perp$   | _            |   | 1 |    | L            | $\perp$ |              | L | $\perp$   |            |              |
| 132               | 1            | 1         | _            |   | 1 |    | L            | _       | _            | L |           |            |              |
| 133               | 4            | 4         | _[           | _ | 4 | _  | L            | 4       |              | L | 1         | _          |              |
| 134<br>135        | +            | 4         | 4            |   | 4 |    | L            | 4       |              | L | 4         | 4          | _            |
| 136               | ╀            | ╀         | 4            | _ | + |    | H            | 4       | _            | L | +         | 4          | 4            |
| 137               | ╁            | +         | +            | _ | + |    | -            | +       | -            | _ | +         | 4          |              |
| 138               | ╁            | +         | +            |   | + |    | $\vdash$     | +       | 4            | _ | +         | +          | $\dashv$     |
| 139               | ✝            | +         | $^{\dagger}$ | - | + |    | $\vdash$     | +       | -            | - | +         | +          | $\dashv$     |
| 140               | $^{\dagger}$ | +-        | +            | _ | + |    | -            | +       | $\dashv$     | - | +         | +          | ┥            |
| 141               | ╁            | t         | +            | _ | ╁ | -  | -            | +       | ┪            |   | ╁         | ╁          | $\dashv$     |
| 142               | $\vdash$     | ╁         | +            |   | + | -  | -            | +       | ┥            |   | ╁         | +          | $\dashv$     |
| 143               | t            | $\dagger$ | $\dagger$    | _ | t | +  | _            | †       | 7            | _ | $\dagger$ | +          | $\dashv$     |
| 144               | Γ            | T         | †            | _ | T | 7  | _            | t       | 1            | _ | †         | +          | ┥            |
| 145               | Г            | $\dagger$ | t            | _ | t | 7  |              | t       | +            | _ | t         | +          | $\dashv$     |
| 146               |              |           | Ť            | _ | Τ | 7  |              | T       | 7            | _ | 1         | †          | $\dashv$     |
| 147               |              |           | Ι            | _ | Γ | 1  |              | Γ       | 1            |   | Τ         | Ť          |              |
| 148               |              | Г         | Γ            |   |   | I  |              |         | I            | _ |           | Ι          |              |
| 149               | L            | L         | L            |   | L | 1  | _            |         | $\perp$      |   | L         | L          |              |
| 150               |              | L         | L            |   |   | 1  |              | L       | 1            |   | 1         |            | 1            |

If more than 150 claims or 10 actions staple additional sheet here